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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/611,783	06/30/2003	Wade L. Hennessey	KON03-0003	1898
22835 7590 07/08/2009 PARK, VAUGHAN & FLEMING LLP 2820 FIFTH STREET DAVIS, CA 95618-7759				
EXAMINER SWEARINGEN, JEFFREY R				
ART UNIT 2445		PAPER NUMBER		
NOTIFICATION DATE 07/08/2009		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

uspto-incoming@parklegal.com

# Office Action Summary

**Application No.**

10/611,783

**Applicant(s)**

HENNESSEY ET AL.

**Examiner**

Jeffrey R. Swearingen

**Art Unit**

2445

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/27/09 has been entered.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1-28 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 112***

3. Claims 1, 10 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. In regard to claims 1, 10, and 19, the claim refers to *directing the peer to the origin server*. It is unclear if *the peer* refers to an available peer within a match set, or the client. For purposes of compact prosecution, *the peer* is treated as the client.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 2, 4-11, 13-21, and 23-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCanne (US 6,785,704) in view of Lahr (US 7,013,322).

7. In regard to claim 1, McCanne disclosed *a method for optimizing traffic on a distributed content delivery network, comprising:*

*receiving a request for content from a client at a directory server;* McCanne, column 6, line 30

*determining if the client is a member of an arena in a list of arenas, wherein an arena is a specified set of nodes on a network and at least one arena has a plurality of nodes;* and McCanne, column 6, lines 33-50

*if the client is a member of the arena, applying routing rules to the delivery of content to the client,* McCanne, column 6, lines 33-50

*wherein the routing rules correspond to the arena;* The arena is the content distribution network, and the way content is redirected is determined based on whether the client's content distribution network is a primary content distribution network for the content provider of the requested content. McCanne, column 6, lines 33-50

*wherein the routing rules involve at least one of the following:*

*directing the client to available peers within one of a set of match sets for the requested content, wherein a match set is a set of network devices as defined by a system administrator;*

*when there are no peers with a copy of the requested content in the match set, automatically directing the client to a next match set in the set of match sets; and*

*directing the peer to the origin server;* McCanne, column 6, lines 33-50 – the primary content distribution network content provider is the origin server

*wherein the order of precedence in which the client is directed to nodes within a match set, to a match set, as well as to the origin server in the routing rules is specified in the routing rules corresponding to each arena.* McCanne, column 6, lines 33-50. The arena is the content distribution network, and the way content is redirected is determined based on whether the client's content distribution network is a primary content distribution network for the content provider of the requested content. The rules in lines 33-50 are based on whether the client's CDN is the same as the content CDN - therefore the rules are according to the arena.

8. McCanne failed to state the configuration rules specifying the order of receiving the content through locations is stored in a location. Lahr disclosed in column 10, line 51 – column 11, line 8 the creation of a configuration file which stored information for respective groups or communities (arenas) where the transport manager decides where the content streams are to be sent and to which groups of servers in said configuration file. It would have been obvious to one of ordinary skill in the art at the time of invention to take McCanne's routing rules which compared the client's CDN to the content CDN

and to save them in a configuration file as taught in Lahr to speed processing of the streams.

9. In regard to claim 2, McCanne further disclosed *defining an arena by receiving input from a user and using the input to specify one or more edge routers that surround nodes on the network that are members of the arena*. Content peering is performed by content service-level agreements. McCanne, column 11, lines 41-65.

10. In regard to claim 4, McCanne further disclosed *defining an arena by receiving input from an administrator and using the input to specify a list of addresses for nodes that comprise the arena*. Content peering is performed by content service-level agreements. McCanne, column 11, lines 41-65.

11. In regard to claim 5, McCanne further disclosed *a routing rule can prohibit traffic across a specific network link*. McCanne, column 12, lines 44-47; column 13, lines 9-10

12. In regard to claim 6, McCanne further disclosed *a routing rule can prohibit traffic across a specific network link when the network link reaches a predetermined utilization*. McCanne, column 12, lines 44-47; column 13, line 10

13. In regard to claim 7, McCanne further disclosed *the routing rule specifies a maximum amount of bandwidth that can be used for content delivery purposes on a specific network link*. McCanne, column 12, lines 44-47; column 13, line 10

14. In regard to claim 8, McCanne further disclosed *applying routing rules to the delivery of content to the client involves:*

*attempting to receive content at the client from nodes on a local subnet;*

McCanne, column 6, lines 33-50; column 22, lines 22-39

*if no nodes are available on the local subnet, attempting to receive the content from nodes in a local arena; McCanne, column 6, lines 33-50; column 22, lines 22-39*

*if no nodes are available on the local arena, attempting to receive the content from nodes in non-local arenas as specified by a fallback list; McCanne, column 6, lines 33-50; column 22, lines 22-39*

*if no nodes are available on non-local arenas, attempting to receive the content from nodes that are topologically close on a router graph, wherein the router graph specifies how the nodes on the network are interconnected; and McCanne, column 6, lines 33-50; column 22, lines 22-39*

*if no nodes are available on the router graph, attempting to receive the content from an origin server. McCanne, column 6, lines 33-50; column 22, lines 22-39*

15. In regard to claim 9, McCanne further disclosed *the fallback list for arenas specifies an ordering of arenas.*

- 16. Claim 10 is substantially the same as claim 1.
- 17. Claim 11 is substantially the same as claim 2.
- 18. Claim 13 is substantially the same as claim 4.
- 19. Claim 14 is substantially the same as claim 5.
- 20. Claim 15 is substantially the same as claim 6.
- 21. Claim 16 is substantially the same as claim 7.
- 22. Claim 17 is substantially the same as claim 8.
- 23. Claim 18 is substantially the same as claim 9.
- 24. Claim 19 is substantially the same as claim 1.

25. Claim 20 is substantially the same as claim 2.
26. In regard to claim 21, McCanne further disclosed *the routing rules specific to the arena include one or more of: an order of precedence for fallback within match sets, identification of sets to avoid, and rules for when to return to an origin server.* McCanne, column 6, lines 33-50; column 22, lines 22-39
27. Claim 23 is substantially the same as claim 4.
28. Claim 24 is substantially the same as claim 5.
29. Claim 25 is substantially the same as claim 6.
30. Claim 26 is substantially the same as claim 7.
31. Claim 27 is substantially the same as claim 8.
32. Claim 28 is substantially the same as claim 9.
33. Claims 3, 12, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCanne in view of Lahr as applied to claims 1, 10 and 19 above, and further in view of Bhasin et al. (US 7,024,177).
34. In regard to claim 3, McCanne in view of Lahr failed to disclose *after an arena is defined, a node can be dynamically assigned to and removed from the arena as the node is physically moved.* Bhasin disclosed connecting mobile devices to an origin server network using Mobile IP. Bhasin, column 3, lines 31-63. It would have been obvious to one of ordinary skill in the art at the time of invention that wireless mobile devices (Lahr suggests use of wireless networks in Lahr, column 9, line 17 and telephony devices in column 9, line 20) connecting to an origin server such as in Lahr



and McCanne would have required the use of Mobile IP as taught in Bhasin, which allowed for dynamic assignment of devices to a node based on their location.

- 35. Claim 12 is substantially the same as claim 3.
- 36. Claim 22 is substantially the same as claim 3.

***Conclusion***

37. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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|------------------|--------------|
| 38. McCanne      | US 6,611,872 |
| 39. Grove et al. | US 6,820,133 |
| 40. Lausier      | US 7,174,373 |
| 41. Sim          | US 7,181,523 |

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey R. Swearingen whose telephone number is (571)272-3921. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivek Srivastava can be reached on 571-272-7304. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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